DEPARTMENT of ENVIRONMENTAL SERVICES
Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake:	CRANEY POND	Lake Area (ha):	14.77
Town:	HENNIKER	Maximum depth (m):	9.1
County:	Merrimack	Mean depth (m):	2.8
River Basin:	Merrimack	Volume (m^3):	414500
Latitude:	43°09' N	Relative depth:	2.1
Longitude:	71°48' W	Shore configuration:	1.17
Elevation (ft):	996	Areal water load (m/yr):	5.74
Shore length (m):	1600	Flushing rate (yr^{-1}):	2.00
Watershed area (ha):	176.1	P retention coeff.:	0.63
% watershed ponded:	0.0	Lake type:	natural

BIOLOGICAL:	3 February 1988	8 July 1987
DOM. PHYTOPLANKTON (% TOTAL) #1	SPARSE - NO DOMINANT	DINOBRYON 90%
#2		
#3		
PHYTOPLANKTON ABUNDANCE (cells/mL)		785.0
CHLOROPHYLL-A (µg/L)		14.94
DOM. ZOOPLANKTON (% TOTAL) #1	PERITRICH CILIATE 50%	KELLICOTTIA 57%
#2	KERATELLA 38%	KERATELLA 18%
#3		
ROTIFERS/LITER	136	231
MICROCRUSTACEA/LITER	0	11
ZOOPLANKTON ABUNDANCE (#/L)	311	251
VASCULAR PLANT ABUNDANCE		Common
SECCHI DISK TRANSPARENCY (m)		1.5
BOTTOM DISSOLVED OXYGEN (mg/L)	5.5	0.1
BACTERIA (fecal col., #/100 ml) #1		10
#2		< 10
#3		

SUMMER THERMAL STRATIFICATION:

stratified

Depth of thermocline (m): 3.4
Hypolimnion volume (m^3): 25000

CHEMICAL:

Lake: CRANEY POND
Town: HENNIKER

	3 February 1988		8 July 1987		
DEPTH (m)	1.5	3.0	3.0		8.0
pH (units)	5.6	5.6	5.6		5.6
A.N.C. (Alkalinity)	2.2	2.8	2.3		2.3
NITRATE NITROGEN	0.07	0.06	< 0.05		< 0.05
TOTAL KJELDAHL NITROGEN	0.54	0.51			0.69
TOTAL PHOSPHORUS	0.010	0.010	0.028		0.026
CONDUCTIVITY (μ mhos/cm)	33.6	34.5			
APPARENT COLOR (cpu)	65	64	95		115
MAGNESIUM			0.44		
CALCIUM			1.7		
SODIUM			2.5		
POTASSIUM			0.60		
CHLORIDE	4	3	4		4
SULFATE	4	4	3		2
TN : TP	61	57			27
CALCITE SATURATION INDEX			5.1		

All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 1987

D.O.	S.D.	PLANT	CHL	TOTAL	CLASS
5	3	2	3	13	Eutro.

COMMENTS:

1. Poor access. Approach to pond is a very rough, 4-wheel drive dirt road, over 1 mile uphill.

2. Water level in the pond appeared to be raised by beaver activity (road ended in the water).

3. Two cottages were located along the shore.

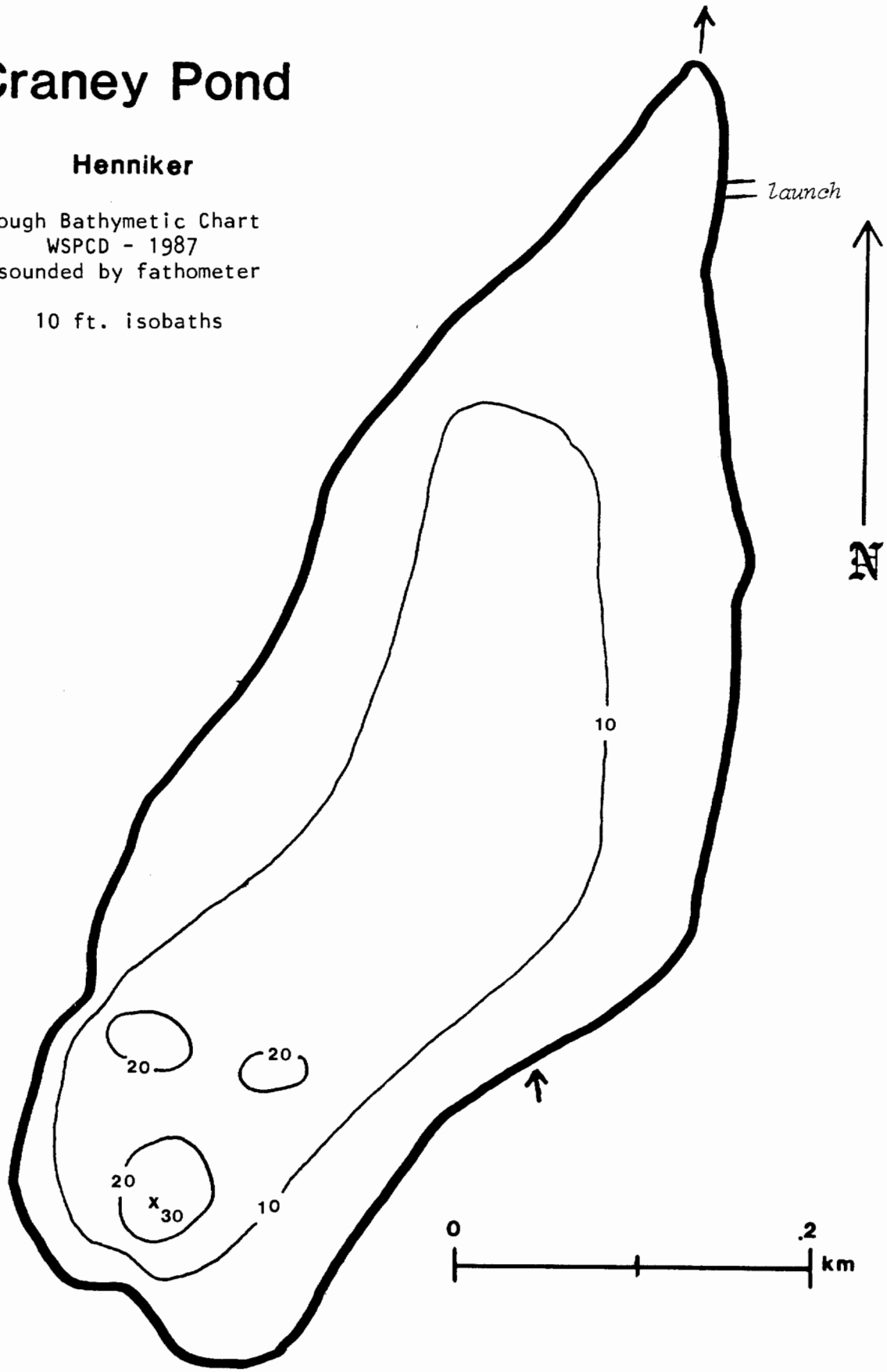
4. The whole-water phytoplankton was 35% greens and 25% dinoflagellates. Dominant genera were tiny green flagellates (30%) and Peridinium (25%).

Craney Pond

Henniker

Rough Bathymetic Chart
WSPCD - 1987
sounded by fathometer

10 ft. isobaths



FIELD DATA SHEET

LAKE: CRANEY POND TOWN: HENNIKER
DATE: 07/08/87 WEATHER: OVERCAST, LIGHT BREEZE...

	DEPTH (M)	TEMP (°C)	*DISSOLVED OXYGEN	OXYGEN SATURATION
	0.1	23.1	8.6	98 %
	1.0	21.9	7.9	87 %
	2.0	19.5	0.4	4 %
	3.0	17.0	0.1	1 %
	4.0	12.1	1.6	15 %
	5.0	9.5	0.1	1 %
	6.0	8.0	0.1	1 %
	7.0	7.5	0.1	1 %
	8.0	7.1	0.1	1 %
	9.0	7.0	0.1	1 %

SECCHI DISK (m): 1.5

BOTTOM DEPTH (m): 9.1

TIME: 1230

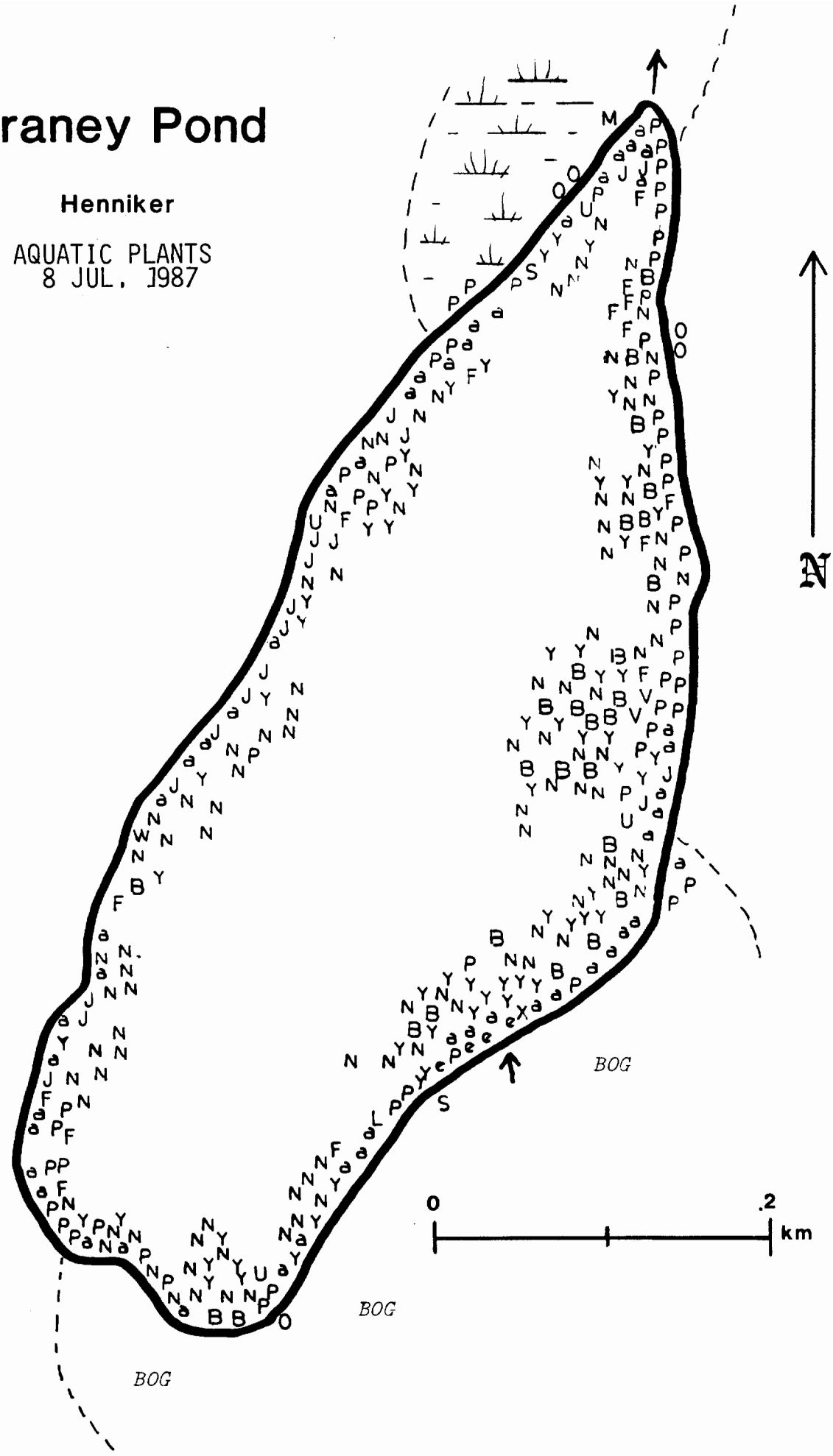
COMMENTS:
A layer (of algae?) was seen on the fathometer at 4 meters, where the D.O. blip occurred.

*Dissolved oxygen values are in mg/L

Craney Pond

Henniker

AQUATIC PLANTS
8 JUL. 1987



AQUATIC PLANT SURVEY

LAKE: CRANEY POND TOWN: HENNIKER DATE: 07/08/87

Key	PLANT NAME		ABUNDANCE
	GENERIC	COMMON	
M	Myrica gale	Sweet gale	Common
J	Juncus	Rush	Common
P	Pontederia cordata	Pickerelweed	Common
a	Peltandra virginica	Arrow arum	Common
U	Utricularia	Bladderwort	Scattered
N	Nymphaea	White water lily	Common
e	Eleocharis	Spike rush	Sparse
O	Cephalanthus occidentalis	Buttonbush	Sparse
B	Brasenia schreberi	Water shield	Scattered
F	Nymphoides cordatum	Floating heart	Scattered
W	Potamogeton	Pondweed	Sparse
L	Lobelia dortmanna	Water lobelia	Sparse
V	Vallisneria americana	Tape grass	Sparse
E	Eriocaulon septangulare	Pipewort	Sparse
Y	Nuphar	Yellow water lily	Common
S	Drosera	Sundew	Scattered
S	Sarracenia purpurea	Pitcher-plant	Scattered

OVERALL ABUNDANCE: Common

GENERAL OBSERVATIONS:

1. Approximately 50% of the shoreline was a bog mat.
2. Swamp pogonia was common in the bog areas but is not depicted on the adjacent map. Sundew and pitcher plants were scattered throughout the bog and both are represented by the letter'S' on the plant map.
3. Sweet gale was located around much of the shoreline but is not depicted on the plant map.
4. Two beaver huts were observed.